What is claimed is:

5

10

15

20

- 1. A chemical reaction processing method for producing a plurality of samples, each sample obtained by mixing a plurality of raw inorganic materials in its own predetermined mixing ratio, and for analyzing the samples, comprising:
 - a measuring and mixing step, including
 - (A) a raw material distribution step wherein each raw inorganic material is measured by volume and is distributed in predetermined quantities into mixing vessels, in which the raw inorganic materials are mixed to produce the samples, and
 - (B) a sample transfer step of transferring the samples from the mixing vessels to a reaction tray on which the samples are arranged in respective predetermined quantities;
- a flattening step of flattening surfaces of the samples on the reaction tray;

 a heat treating step of heat-treating the samples on the reaction tray all at once;

 a measurement step of sequentially performing a predetermined measurement on
 the samples on the reaction tray; and
- an analyzing step of analyzing measurement results obtained in said measurement step.
- 2. The chemical reaction processing method as set forth in claim 1, wherein each of the raw inorganic materials is in the form of a slurry.
 - 3. The chemical reaction processing method as set forth in claim 1, wherein each of the raw inorganic materials is in the form of a liquid.

- 4. The chemical reaction processing method as set forth in claim 1, wherein said measuring and mixing step includes a mixing vessel holding step of holding the mixing vessels in which the raw materials are distributed and mixed to produce the samples.
- 5. The chemical reaction processing method as set forth in claim 1,
 wherein molarity of an element is made the same for all the raw materials in order
 to have the samples in all the mixing vessels with the same volume as well as with the
 same total number of moles of the elements of the raw inorganic materials.
- 6. The chemical reaction processing method as set forth in claim 4,
 wherein said measuring and mixing step includes an agitating step of agitating the samples in the mixing vessels during said mixing vessel holding step.
 - 8. The chemical reaction processing method as set forth in claim 1, wherein the transfer of each sample to the reaction tray in said sample transfer step is made a plurality of times.
- 9. The chemical reaction processing method as set forth in claim 1, wherein said flattening step comprises a press-molding step of pressing the samples on the reaction tray to make the sample surfaces flat.

20

10. The chemical reaction processing method as set forth in claim 1, wherein said flattening step comprises a cutting step of cutting off heaped portions of the samples on the reaction tray to make the sample surfaces flat.